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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/840,923	04/25/2001	Michael G. Foulger	2018.0060001	6526
26111 7590 01/03/2008 STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C. 1100 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005			EXAMINER TANG, KENNETH	
			ART UNIT 2195	PAPER NUMBER
			MAIL DATE 01/03/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.		Applicant(s)	
	09/840,923		FOULGER ET AL.	
	Examiner		Art Unit	
	Kenneth Tang		2195	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 27-44 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 27-44 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 April 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>10/30/07</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This office action is in response to the RCE/IDS submission on 10/30/07, the Appeal Brief on 8/17/07 as well as the Amendment filed on 10/19/06. Applicant's arguments have been fully considered but are considered moot in view of the new grounds of rejections.
2. Claims 27-44 are presented for examination.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 39-44 are directed to non-statutory subject matter. In claim 39, and according to the Specification (page 19, lines 11-19), the computer program product can refer to a carrier wave. In this situation, the claim fails to fall under one of the four statutory categories of inventions. 35 U.S.C. 101 defines four categories of inventions that Congress deemed to be the appropriate subject matter of a patent: processes, machines, manufactures and compositions of matter. The latter three categories define "things" or "products" while the first category defines "actions" (i.e., inventions that consist of a series of steps or acts to be performed). See 35 U.S.C. 100(b) ("The term process' means process, art, or method, and includes a new use of a known process, machine, manufacture, composition of matter, or material."). As to claim 39, a claim directed to a computer program product that can refer to a carrier wave would not be a process, nor a machine, nor a manufactures, nor a composition of matter, and therefore, would not fall within any of the above categories. To

overcome the 35 USC § 101 rejection, an amendment is required to exclude the carrier waves.

For example, the Applicant's carrier wave needs to be separately defined as a communication or transmission medium in the Specification and the computer usable medium needs to be defined as "storage" medium. The Examiner further notes that in the Specification (page 19, line 14), the Applicant defines a storage unit 554 but not storage.

4. Claims 40-44 are also rejected as they are dependent claims of rejected claim 39.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claims 27-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Peddada et al. (hereinafter Peddada) (US 6,031,533) in view of Antonioletti ("Load Sharing Across Networked Computers", December 1997).**

6. As to claim 27, Peddada teaches a computer-based method of scheduling executions of programs on a plurality of computers comprising the steps of, at a scheduling third computer (Master Server computer 12 is the third computer and it contains the Master Schedule) (Figs. 1 and 2, item 12):

(a) installation of a first program on the first computer (end-user server 16) (Figs. 1-2, items 16,18, col. 5, lines 22-26, 33-36, and 42-61, col. 4, lines 64-66);

(b) installation of a second program on the second computer (Intermediate Server or another End-User server in the network 22) (see Figs. 1-2, items 14.1-14.N, 16), wherein the operating system of the second computer is different from the operating system (different computer platforms such as an operating system from a Mac and an operating system from a PC) (col. 4, lines 48-55, col. 1, lines 37-39) of the first computer (Figs. 1-2, items 16, 18, col. 5, lines 22-26, 33-36, and 42-61);

(c) updating a master schedule, wherein the updated master schedule indicates when the first program is to be executed on the first computer and when the second program is to be executed on the second computer (col. 3, lines 20-35); and

(d) requesting the first computer to execute the first program and requesting the second computer to execute the second program according to the updated master schedule.

7. In summary from the above citations, Peddada teaches that a master server 12 can act as a master scheduler for Intermediate Servers 14.1-14.N as well as End-User Server A 16. In turn the Intermediate Servers 14.1-14.N as well as End-User Server A 16 can act as a master scheduler for its respective plurality of user clients 18. The master server has the capability to distribute, install, maintain, manage, and modify software application programs and files stored on the client network device. There is also bi-directional communication between the master server and its intermediate servers/end-user server, etc.

8. As mentioned above, Peddada does teach a master server/scheduler initiating a software program installation on a first computer and that the master server maintains communication with the first computer so that the master server could provide management.

However, Peddada is silent in receiving notifications upon the installations of the first and second computer and using these notifications to update the master scheduler.

9. Antonioletti teaches a master scheduler that monitors the progress of execution done on a plurality of clients in a network as well as receives information from said clients (see page 5, second paragraph, page 8, Section 2.2.4, Fig. 4, page 20, Section 3.2.4).

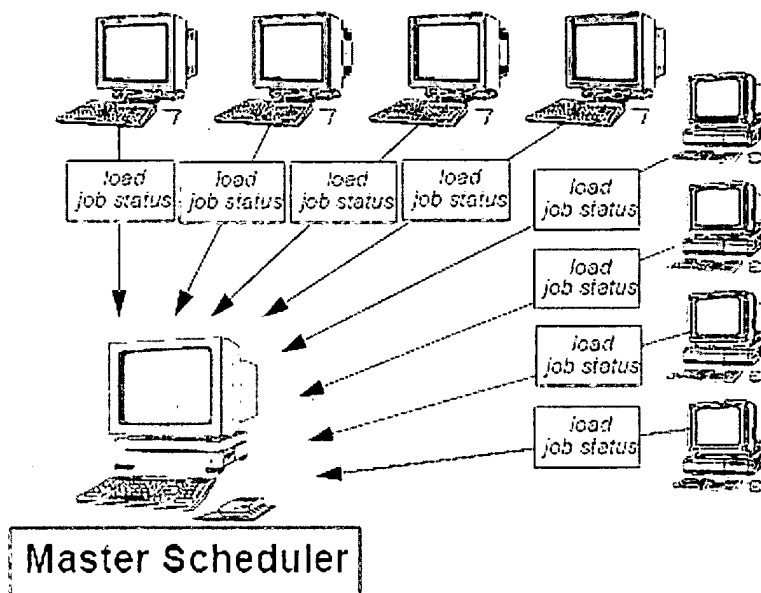


Figure 4: Communication of the state of the system to the master scheduler.

In addition, the Master Scheduler can be informed of its/their completion of execution (or status) done on the clients (see page 5, second paragraph, Section 2.2.4).

10. Peddada (see Fig. 1, 12, 14.1-14.N) and Antonioletti (Fig. 4) are analogous art because they both relate to scheduling and controlling in a master/slave networked environment.

11. One of ordinary skill in the art would have known to modify Peddada such that its Master Server would monitor the progress of execution, like in the teachings of Antonioletti, such that the Master Server would be informed/notified/updated upon completion of an installation of the first or second computer.

12. The suggestion/motivation for doing so would have been to provide the predicted result of providing important information to the master scheduler so it can ensure that the system is running efficiently and that optimal performance is achieved (page 5, second paragraph of Antonioletti).

13. As to claim 28, Antonioletti teaches wherein step (c) further comprises indicating in the master schedule that the execution of the first program depends on a condition (the machine is not currently over loaded with sufficient hardware resources to be able to run the user's job, for example) (page 5, Section 2.2.3); and step (d) further comprises requesting the first computer to execute the first program upon the occurrence of the condition (executing the job if the machine is not currently over loaded with sufficient hardware resources to be able to run the user's job, for example) (page 5, Section 2.2.3). In addition, Antonioletti teaches that jobs can be given different priorities of execution that help the master scheduler allocate an execution order (page 4, Section 2.2.2). In this case, as another example, if the first program has the condition of the higher priority, it would allow execution of the first program because of this condition of being the higher priority.

14. As to claim 29, Antonioletti teaches wherein step (c) further comprises indicating in the updated master schedule that an execution of the second program depends on an execution of the first program meeting a criterion; and step (d) comprises:

(1) requesting the first computer to execute the first program (page 5, Section 2.2.3);

(2) receiving a result from the first computer (broadcast its load state and update the information) (page 7, 4th bullet point, page 8, Section 2.2.4); and

(3) requesting the second computer to execute the second program if the result meets the criterion (threshold) (page 7, 2nd bullet from the end).

15. In summary, Antonioletti teaches that the master scheduler can request the first computer to execute the first program. While monitoring the progress of the program execution, information can be informed of its status to the master scheduler. The master scheduler can request the second computer to execute the second program if the result of the first program satisfies the criterion or threshold that determines when there are not sufficient resources for the user to run the job.

16. As to claim 30, Antonioletti teaches wherein step (d) further comprises:

(1) monitoring the load of the first computer (part of load balancing) (page 16, Section 3.2.1);

(2) monitoring the load of the second computer (part of load balancing) (page 16, Section 3.2.1);

(3) adjusting the updated master schedule based on the load of the first computer and the load of the second computer (collecting and processing information from load assessment policy so that an informed decision can be made to place the job, or placement policy) (page 5, Section 2.2.3).

17. As to claim 31, Antonioletti teaches wherein step (c) further comprises assigning a first priority to the first program and a second priority to the second program; and further comprising adjusting the updated master schedule based on the first priority and the second priority (last paragraph of page 4 and second paragraph of page 5).

18. As to claim 32, Peddada teaches wherein step (c) further comprises accepting at least one command from a user to define the updated master schedule (user can initiate a command from its graphical user interface) (Fig. 12, item 130, Fig. 15, item 170).

19. As to claim 33, it is rejected for the same reasons as stated in the rejection of claim 27.

20. As to claims 34-35, they are rejected for the same reasons as stated in the rejections of claims 28-29.

21. As to claim 36 and 42, they are rejected for the same reasons as stated in the rejection of claim 30.

22. As to claim 37 and 43, they are rejected for the same reasons as stated in the rejection of claim 31.

23. As to claim 38, it is rejected for the same reasons as stated in the rejection of claim 32.

24. As to claim 39, it is rejected for the same reasons as stated in the rejection of claim 27.

Peddada discloses having a computer program product having a computer readable medium 186 that stores the sequences of instructions (col. 13, lines 24-52).

25. As to claims 40-41, they are rejected for the same reasons as stated in the rejections of claims 28-29.

26. As to claim 44, it is rejected for the same reasons as stated in the rejection of claim 32.

Response to Arguments

27. Applicant's attempted amendment on 10/19/06 to overcome the 35 USC § 101 was not sufficient.

28. In claim 39, and according to the Specification (page 19, lines 11-19), the computer program product can refer to a carrier wave. In this situation, the claim fails to fall under one of the four statutory categories of inventions. 35 U.S.C. 101 defines four categories of inventions that Congress deemed to be the appropriate subject matter of a patent: processes, machines, manufactures and compositions of matter. The latter three categories define "things" or "products" while the first category defines "actions" (i.e., inventions that consist of a series of steps or acts to be performed). See 35 U.S.C. 100(b) ("The term process' means process, art, or method, and includes a new use of a known process, machine, manufacture, composition

of matter, or material.”). As to claim 39, a claim directed to a computer program product that can refer to a carrier wave would not be a process, nor a machine, nor a manufactures, nor a composition of matter, and therefore, would not fall within any of the above categories. To overcome the 35 USC § 101 rejection, an amendment is required to exclude the carrier waves. For example, the Applicant’s carrier wave needs to be separately defined as a communication or transmission medium in the Specification and the computer usable medium needs to be defined as "storage" medium.

29. Applicant’s arguments regarding the prior art have been fully considered but are moot in view of the new grounds of rejections.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

- Ozawa et al. (JP 407200509A) discloses the allotment of programs from a master to a plurality of slaves, wherein the master server 1 is a master scheduler (see English translation of the Abstract).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenneth Tang whose telephone number is (571) 272-3772. The examiner can normally be reached on 8:30AM - 6:00PM, Every other Friday off.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (571) 272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Kenneth Tang
12/28/07